

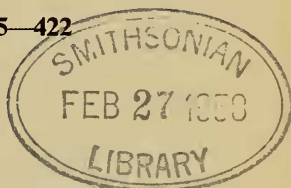
OPINIONS AND DECLARATIONS RENDERED BY THE INTER- NATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.

Secretary to the Commission

VOLUME 17. Part 22. Pp. 395—422



OPINION 500

Validation under the Plenary Powers of the spelling
PIERIDAE for the name of the family-group taxon having
the genus *Pieris* Schrank, 1801 as its type genus (Class
Insecta, Order Lepidoptera)

LONDON:

Printed by Order of the International Trust for
Zoological Nomenclature
and

Sold on behalf of the International Commission on Zoological
Nomenclature by the International Trust at its Publications Office
41, Queen's Gate, London, S.W.7
1958

Price Eighteen Shillings and Sixpence

(All rights reserved)

INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 500

A. The Officers of the Commission

Honorary Life President : Dr. Karl JORDAN (*British Museum (Natural History), Zoological Museum, Tring, Herts., England*)

President : Professor James Chester BRADLEY (*Cornell University, Ithaca, N.Y., U.S.A.*)
(12th August 1953)

Vice-President : Senhor Dr. Afranio do AMARAL (*Sao Paulo, Brazil*) (12th August 1953)

Secretary : Mr. Francis HEMMING (*London, England*) (27th July 1948)

B. The Members of the Commission

(Arranged in order of precedence by reference to date of election or of most recent re-election,
as prescribed by the International Congress of Zoology)

Professor H. BOSCHMA (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)
(1st January 1947)

Senor Dr. Angel CARRERA (*La Plata, Argentina*) (27th July 1948)

Mr. Francis HEMMING (*London, England*) (27th July 1948) (*Secretary*)

Dr. Henning LEMCHE (*Universitetets Zoologiske Museum, Copenhagen, Denmark*) (27th
July 1948)

Professor Teiso ESAKI (*Kyushu University, Fukuoka, Japan*) (17th April 1950)

Professor Pierre BONNET (*Université de Toulouse, France*) (9th June 1950)

Mr. Norman Denbigh RILEY (*British Museum (Natural History), London*) (9th June 1950)

Professor Tadeusz JACZEWSKI (*Institute of Zoology, Polish Academy of Sciences, Warsaw, Poland*) (15th June 1950)

Professor Robert MERTENS (*Natur-Museum u. Forschungs-Institut Senckenberg, Frankfurt a.M., Germany*) (5th July 1950)

Professor Erich Martin HERING (*Zoologisches Museum der Humboldt-Universität zu Berlin, Germany*) (5th July 1950)

Senhor Dr. Afranio do AMARAL (*S. Paulo, Brazil*) (12th August 1953) (*Vice-President*)

Professor J. R. DYMOND (*University of Toronto, Toronto, Canada*) (12th August 1953)

Professor J. Chester BRADLEY (*Cornell University, Ithaca, N.Y., U.S.A.*) (12th August 1953) (*President*)

Professor Harold E. VOKES (*University of Tulane, Department of Geology, New Orleans, Louisiana, U.S.A.*) (12th August 1953)

Professor Béla HANKÓ (*Mezőgazdasági Múzeum, Budapest, Hungary*) (12th August 1953)

Dr. Norman R. STOLL (*Rockefeller Institute for Medical Research, New York, N.Y., U.S.A.*) (12th August 1953)

Mr. P. C. SYLVESTER-BRADLEY (*Sheffield University, Sheffield, England*) (12th August 1953)

Dr. L. B. HOLTHUIS (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)
(12th August 1953)

Dr. K. H. L. KEY (*Commonwealth Scientific and Industrial Research Organisation, Canberra, A.C.T., Australia*) (15th October 1954)

Dr. Alden H. MILLER (*Museum of Vertebrate Zoology, University of California, U.S.A.*)
(29th October 1954)

Doc. Dr. Ferdinand PRANTL (*Národní Museum V Praze, Prague, Czechoslovakia*) (30th
October 1954)

Professor Dr. Wilhelm KÜHNELT (*Zoologisches Institut der Universität, Vienna, Austria*)
(6th November 1954)

Professor F. S. BODENHEIMER (*The Hebrew University, Jerusalem, Israel*) (11th November 1954)

Professor Ernst MAYR (*Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.*) (4th December 1954)

Professor Enrico TORTONESE (*Museo di Storia Naturale "G. Doria", Genova, Italy*)
(16th December 1954)

OPINION 500

VALIDATION UNDER THE PLENARY POWERS OF THE SPELLING "PIERIDAE" FOR THE NAME OF THE FAMILY-GROUP TAXON HAVING THE GENUS "PIERIS" SCHRANK, 1801 AS ITS TYPE GENUS (CLASS INSECTA, ORDER LEPIDOPTERA)

RULING :—(1) Under the Plenary Powers :—

(a) the spelling PIERIDIDAE for the name of the family-group taxon having the genus *Pieris* Schrank, 1801 (Class Insecta, Order Lepidoptera) as type genus is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy ;

(b) the spelling PIERIDAE for the name of the foregoing family-group taxon is hereby validated.

(2) The under-mentioned family-group name is hereby placed on the *Official List of Family-Group Names in Zoology* with the Name No. 206 :—

PIERIDAE (correction of PIERIDES) Duponchel, 1832, as validated under the Plenary Powers in (1)(b) above (type genus : *Pieris* Schrank, 1801)

(3) The under-mentioned family-group names are hereby placed on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* with the Name Numbers severally specified below :—

(a) PIERIDES Duponchel, 1832 (type genus : *Pieris* Schrank, 1801) (an Invalid Original Spelling for PIERIDAE, a name validated under the Plenary Powers in (1)(b) above) (Name No. 238) ;

- (b) PIERIDINA Herrich-Schaeffer, 1853 (type genus : *Pieris* Schrank, 1801) (an Invalid Original Spelling for PIERIDIDAE, a name suppressed under the Plenary Powers in (1)(a) above) (Name No. 239) ;
- (c) PIERIDIDAE Reuter, 1897 (type genus : *Pieris* Schrank, 1801), as suppressed under the Plenary Powers in (1)(a) above (Name No. 240).

I. THE STATEMENT OF THE CASE

The question of the spelling to be adopted for the family-group name based upon the generic name *Pieris* Schrank, 1801 (Class Insecta, Order Lepidoptera) was brought to the attention of the Office of the International Commission in June 1947 by Dr. Jiří Paclt (*Prague, Czechoslovakia*). At that time, however, the whole question of the rules governing the formation of family-group names was under consideration by the International Congresses of Zoology and in consequence the Commission was not then in a position to deal with the question raised by Dr. Paclt. The position was, however, completely altered when in 1953 the Fourteenth International Congress of Zoology at Copenhagen adopted a comprehensive series of rules for regulating names of the family-group category. In the new situation so created the Secretary formed the opinion that in view of the fact that the problem presented by the spelling to be adopted for the family-group name based on the foregoing generic name, namely the question whether a technically correct but little-used spelling (in this case, the spelling PIERIDIDAE) for a family-group name or a customary and long-established spelling (in this case, the spelling PIERIDAE) should be officially approved was the first of the kind to have been brought before the Commission, it was desirable that exceptional measures should be taken to ascertain the views of interested specialists. Accordingly arrangements were made for the issue on 14th June 1956 of a questionnaire on this subject to a large group of specialists in the Order Lepidoptera.

This enquiry elicited the views of thirty-seven (37) out of the total of forty-five (45) specialists consulted. In the light of the advice so received the Secretary prepared a Report for the consideration of the Commission, setting out the issue involved. To that Report were attached as Appendices the communication submitted by Dr. Paclt in 1947 and the replies received from specialists in response to the questionnaire referred to above. The Secretary's Report, which was completed on 23rd August 1956, was as follows :—

Proposed use of the Plenary Powers to validate the spelling " Pieridae " as against the spelling " Pierididae " as the family-group name based on the generic name " Pieris " Schrank, 1801 (Class Insecta, Order Lepidoptera)

By FRANCIS HEMMING, C.M.G., C.B.E.

(Secretary to the International Commission on Zoological Nomenclature)

The purpose of the present application is to ask the International Commission on Zoological Nomenclature to give a Ruling on the question whether the family-group name based on the generic name *Pieris* Schrank, 1801 (Class Insecta, Order Lepidoptera) should (a) by direction under the Plenary Powers be formed as PIERIDAE, the form by far the most commonly employed or (b) be formed as PIERIDIDAE, the spelling which is technically correct.

2. This question was first brought to the attention of the International Commission in June, 1947 by Dr. Jiří Paclt (then of the Národní Museum v Praze, Prague, and now of Bratislava, Czechoslovakia), who advocated the adoption of the spelling PIERIDIDAE. Dr. Paclt's paper is annexed to the present note as Appendix 1.

3. At Paris 1948 the Thirteenth International Congress of Zoology gave directions that the whole question of the provisions in the *Règles* relating to the formation of family-group names should form the subject of consultation with interested specialists with a view to the submission of comprehensive proposals on this subject to the next International Congress when it should meet at Copenhagen in 1953. The decisions taken by that Congress (1953, *Copenhagen Decisions zool. Nomencl.*: 32—37, Decisions 43—58) made possible the further consideration of the present case.

4. By a decision taken in 1948 as part of the settlement of the question of the names for genera of the Sub-Order Rhopalocera cited in Hübner's

Tentamen, the generic name *Pieris* Schrank, 1801, was placed on the *Official List of Generic Names in Zoology* as Name No. 704 by the Ruling given in *Opinion 278* (1954, *Ops. Decls. int. Comm. zool. Nomencl.* 6 : 135—178). For this reason also it is desirable that an early decision should be taken by the International Commission as to the form to be adopted for forming the family-group name based upon this generic name.

5. The present is the first case on which the Commission has been asked to take a decision on the question of the form to be adopted for a family-group name where the strictly correct form is not in harmony with general usage. Special consideration was accordingly given to the form of procedure to be adopted in submitting this matter to the Commission. It was decided that in view of the wide interest to lepidopterists of the problem raised in this case exceptional measures should be taken to secure statements from interested specialists of their views as to the action which it was desirable should be taken before the case was published in the *Bulletin*. The advance information so obtained would, it was considered, be of special value in that it would, it was hoped, provide an indication of the spread of opinion among specialists and thus afford a basis on which to prepare proposals for the consideration of the International Commission.

6. As a preliminary to the initiation of the proposed consultation referred to above, it was decided to clear the ground on the issue of fact involved in this case by asking Professor the Rev. L. W. Grensted, Consulting Classical Adviser to the International Commission, to furnish a Report on the question of what under the *Règles* was the correct form of the family-group name based on the generic name *Pieris* Schrank. Professor Grensted's Report, which fully confirmed Dr. Paclt's view that the correct spelling for this family-group name was PIERIDIDAE, was as follows :—

The early generic names of butterflies were largely based on the names of goddesses and nymphs in classical mythology. *Pieris* is probably meant as a singular from "*Pieridae*", the Muses. It happens also to occur in classical Latin as a personal name, *Pieris*, genitive *Pieridis*. For both reasons the stem is "*Pierid-*" and the correct family name would be PIERIDIDAE. The Greek name for the Muses, *Pierides*, confirms this.

7. At this point it may be convenient to summarise briefly as follows the historical background of the present case :—

- (1) The generic name *Pieris* Schrank was first taken as the base for a family-group-name by Duponchel in 1832 (*in* Godart, *Hist. nat. Lép. France* Suppl. 1 : 381. This name was there cited both in French (as "*Piérides*") and in Latin (as *Pierides*)).

- (2) From Duponchel's time onwards this taxon has been cited under the name PIERINAE or PIERIDAE in all the principal catalogues checklists, standard works and monographs and in the great majority of individual papers.
- (3) In a paper published in 1853 (*Lepid. exot. Spec. nov.* : 54) Herrich-Schäffer employed the term PIERIDINA, a spelling which implies that, if the name had been formed as the name of a family with the approved termination, that name would have been spelled as PIERIDIDAE. This name was actually first so spelled by Reuter in 1897 (*Acta Soc. Sci. fenn.* 22 : 228). It has since been used by a number of authors in individual papers. It has also been used in one important modern work (Nordström, Wahlgren & Tullgren, 1935, *Svenska Fjärilar*). These usages represent, however, only a very small percentage of the combined usage of the spellings PIERIDIDAE and PIERIDAE, the majority of authors having continued to use the shorter form of this name.

8. In the spring of 1956 I prepared a paper to be despatched to interested specialists seeking their views as to the relative acceptability of the two forms which had been used for the family-group name based upon the generic name *Pieris* Schrank. The paper concluded with the following paragraph in which were set out the questions on which advice was sought :—

The question for which answers are now sought are the following :—

- (1) Do you consider that the International Commission should take such action as is necessary to secure that the family name based upon the generic name *Pieris* Schrank, 1801, shall be PIERIDAE, the spelling used therefor by almost all workers both at the present time and throughout the period since the above genus was made the type genus of a family-group taxon ?

or

- (2) Do you consider that the normal rules should be allowed to operate in the present case and therefore that the spelling PIERIDIDAE should be accepted for this family name ?

9. I next invited Mr. N. D. Riley (*British Museum (Natural History), London*) to assist in drawing up the list of specialists to whom copies of the paper referred to above should be sent. The list as finally drawn up contained forty-five names. The specialists so consulted were the following :—

(a) *Europe* :

R. Agenjo (*Madrid*) ; G. Bernardi (*Paris*) ; H. Beuret (*Neuwelt pres Basle*) ; J. A. Bourgogne (*Paris*) ; W. Forster (*Munich*) ;

W. J. Hall (*London*) ; E. Handschin (*Basle*) ; F. Hemming (*London*) ; E. M. Hering (*Berlin*) ; S. Hoffmeyer (*Aarhus*) ; N. Knaben (*Oslo*) ; H. de Lesse (*Paris*) ; Z. Lorković (*Zagreb*) ; A. M. Morley (*Folkestone*) ; M. Opheim (*Oslo*) ; B. Petersen (*Uppsala*) ; N. D. Riley (*London*) ; B. N. Schwanwitsch (*Leningrad*) ; R. Verity (*Florence*) ; P. E. L. Viette (*Paris*) ; B. C. S. Warren (*Folkestone*) ;

(b) *Asia* :

Hem Singh Pruthi (*Panjab University*) ; A. Sibatani (*Japan*) ;

(c) *Africa* :

L. A. Berger (*Belgian Congo*) ; T. H. B. Jackson (*Kitale, Kenya*) ; H. K. Munro (*Pretoria*) ; R. Paulian (*Madagascar*) ; V. G. L. van Someren (*Nairobi*) ; G. van Son (*Pretoria*) ;

(d) *Australia* :

J. A. Nicholson (*Canberra*) ;

(e) *North America* :

B. P. Beirne (*Ottawa*) ; F. Martin Brown (*Colorado Springs*) ; C. F. dos Passos (*Mendham, N.J.*) ; D. C. Ferguson (*Halifax, N.S.*) ; W. Field (*Washington, D.C.*) ; J. G. Franclemont (*Ithaca, N.Y.*) ; A. B. Klots (*New York City*) ; J. M^CDunnough (*Halifax, N.S.*) ; E. G. Munroe (*Ottawa*) ; C. L. Remington (*New Haven, Conn.*) ; E. C. Zimmerman (*Cambridge, Mass.*) ;

(f) *Central and South America* :

H. E. Box (*Trinidad*) ; A. da Costa Lima (*Rio de Janeiro*) ; R. Ferreira d'Almeida (*Rio de Janeiro*) ; K. J. Hayward (*Tucumán*).

10. As the result of the consultations so carried out by the Office of the Commission the views of thirty-seven (37) specialists have been obtained. Of these specialists twenty-eight (28) advocated the adoption by the Commission of a decision in favour of the technically incorrect spelling PIERIDAE, and nine (9), including Dr. J. Paclt, by whom (as explained in paragraph 2 above) this question was first placed before the Commission, favoured the application of the normal provisions of the *Règles* and consequently recommended the acceptance of the spelling PIERIDIDAE. Extracts from the communications so received are given in Appendix 2 (support for PIERIDAE) and Appendix 3 (support for PIERIDIDAE) annexed to the present paper.

11. I set out below the action by the International Commission which would be called for (1) if it approved the majority recommendations now placed before it in favour of the spelling PIERIDAE (Alterna-

tive "A") and (2) if it approved the minority recommendations now placed before in favour of the spelling PIERIDIDAE (Alternative "B") :—

Alternative "A"

(validation of the spelling "PIERIDAE")

- (1) Suppression under the Plenary Powers of the spelling PIERIDIDAE for the name of the family-group taxon having *Pieris* Schrank, 1801, as its type genus and validation of the spelling PIERIDAE for the name of the above taxon.
- (2) Addition of PIERIDAE (correction of PIERIDES) Duponchel, 1832, as validated under (1) above (type genus : *Pieris* Schrank, 1801) to the *Official List of Family-Group Names in Zoology*.
- (3) Addition to the *Official Index of Rejected and Invalid Family-Group Names in Zoology* of : (a) PIERIDES Duponchel, 1832 (an Invalid Original Spelling for PIERIDAE), (b) PIERIDINA Herrich-Schäffer, 1853 (an Invalid Original Spelling for PIERIDIDAE suppressed under (1) above), (c) PIERIDIDAE (correction of PIERIDINA) Herrich-Schäffer, 1853 (first published in this form by Reuter in 1897) (spelling suppressed under (1) above).

Alternative "B"

(acceptance of the spelling "PIERIDIDAE")

- (1) Rejection of the proposal (a) for the suppression under the Plenary Powers of the spelling PIERIDIDAE for the name of the family-group taxon having *Pieris* Schrank, 1801, as its type genus and (b) for the validation of the spelling PIERIDAE for the above taxon.
- (2) Addition to the *Official List of Family-Group Names in Zoology* of PIERIDIDAE (correction of PIERIDES) Duponchel, 1832 (type genus : *Pieris* Schrank, 1801).
- (3) Addition to the *Official Index of Rejected and Invalid Family-Group Names in Zoology* of : (a) PIERIDES Duponchel, 1832 (an Invalid Original Spelling for PIERIDIDAE) ; (b) PIERIDAE Duponchel, 1844 (*Cat. méth. Lépid. Eur.* : 23) (an Erroneous Subsequent Spelling for PIERIDIDAE).

APPENDIX 1

On the philological inconvenience of the well-known family name
“PIERIDAE”

By JIŘÍ PACLT

(National Museum, Prague, Czechoslovakia)

It seems to me necessary to call attention to the correct form of the family name used for an important group of butterflies comprising the “Whites” and the “Yellows”.

2. As the type genus of the above-mentioned family *Pieris* Schrank, 1801, must be considered. To find the derivation of this name there is a Latin index of *nomina propria* which is very useful. “*Pieris*” was a Muse, but it should be realised that the stem of the name does not appear in the supposed form “*Pier-*” (thence PIERIDAE). The name “*Pieris*”, as may be seen from whichever Latin dictionary may be consulted, has the genitive “*Pieridis*”. From this, the stem will be obtained when the suffix “*-is-*” is taken off, namely “*Pierid-*”.

3. Article 4 of the International Code says: “The name of a family is formed by adding the ending ‘*idae*’, the name of a subfamily by adding ‘*inae*’, to the stem of the name of one of the included genera, which would then be regarded as the type genus” (modified text recommended by the British National Committee on Entomological Nomenclature in 1928, and used here on the grounds that it is preferable to the official text).¹

4. In accordance with the fact that the stem of the name “*Pieris*” is “*Pierid-*”, and with the directions of the relevant Article of the International Code, the grammatically correct and nomenclatorially valid form of the family name is PIERIDIDAE.

History

5. The family was called PIERIDAE by Duponchel (1844, *Cat. Lép. Europ.* : 23) as a modification of that author’s own PIERIDES (1832, in

¹ The suggested re-wording of Article 4 here referred to was not subsequently approved by the International Congress of Zoology and accordingly never acquired any official status. The provisions in the *Règles* relating to the formation of family-group names were completely re-modelled by the Fourteenth International Congress of Zoology, Copenhagen, 1953 (see 1953, *Copenhagen Decisions zool. Nomencl.* : 32—37). The wording of the provision referred to by Dr. Paclt was revised but the basic meaning of this provision remained unaltered.

Godart, *Hist. nat. Lép. France*, Suppl. 1 : 381). The first author to recognise the grammatical character of the name in question was Herrich-Schäffer (1853, *Lepid. exot.*: 54) who used the name PIERIDINA for these butterflies.

6. Unfortunately the family for the "Whites" and "Yellows" has, with some exceptions, been known as PIERIDAE since Duponchel. The correct name PIERIDIDAE was used—to my knowledge—by the following authors only:—

Reuter (1896, *Acta Soc. Sci. fenn.* 22 : 228 *et ff*); Grote (1900, *Proc. amer. phil. Soc.* 39 : 13); Grote (1901, *Verh. zool.-bot. Ges. Wien* 51 : 659); Jachontov (1904, *Rev. russ. Ent.* 4 : 15); Strand (1910, *Wien. ent. Z.* 29 : 30); Grünberg (1910, *Denkschr. med.-naturwiss. Ges. Jena* 16 : 111); Grünberg (1911, *Stett. ent. Z.* 72 : 378); Strand (1912, *Arch. Naturg.* A11 : 67; *id.*, 1913, *ibid.* A2 : 10—22; *id.*, 1914, *ibid.* A10 : 105; *id.* 1916, *ibid.* A5 : 100; *id.*, 1918, *Soc. ent.* 33 : 20); Biezanko (1924, *Arch. Naturg.* 90, A5 : 243); Caland (1925, *Ent. Ber.* 6 : 388—396); Strand (1927, *Arch. Naturg.* 91, A12 : 281); Halik (1929, *Brehms Tierleben* (Czech edition) vol. 1, tab. 9, pp. 322—323; (in the German edition of 1915 by R. & H. Heymons on p. 329 of the 4th edition, tome 2, the name is used only in the subfamily sense as PIERIDINAE); Nordström, Wahlgren & Tullgren (1935, *Svenska Fjärilar* (1), Almän, Delen : 20, 78, 79, 82, (2), *Syst. Delen* : 4); Nordström (1943, *Opusc. ent.* 8 : 62); Paclt (1944, *Acta Soc. ent. Bohem.* 41 : 122, 124); Bryk (1944, *Ark. Zool.* 36A (No. 3) : 3; *id.*, 1946, *ibid.* 38A (No. 3) : 13); Paclt (1946, *Biol. Listy* 27 : 31); Paclt (1947, *Acta Soc. ent. Czechosl.* 44 : 40).

APPENDIX 2

Comments received from specialists who favour the commonly current spelling "PIERIDAE"

1. G. van Son (*Pretoria*) (18th June 1956)

The name PIERIDAE has been in universal use throughout lepidopterological literature, notwithstanding the fact that old workers in this field were usually possessed of a better knowledge of classical languages than many modern workers are. When the family is referred to in the vernacular, it is always spoken of as Pierid, not Pieridid, and the butterflies are given as Pierids, not Pieridids.

In view of the above, I am strongly in favour of the name PIERIDAE being preserved in preference to PIERIDIDAE. This view is shared by Dr. H. K. Munro, Entomologist in charge of the National Collection of Insects of the Union Department of Agriculture.

2. H. K. Munro (*Pretoria*) (18th June 1956)

For Dr. Munro's views, see No. 1 above.

3. J. McDunnough (*Halifax, Canada*) (18th June 1956)

The question of whether the name PIERIDAE should be changed to PIERIDIDAE. I am against making such a change on the excuse of a mere technicality. As you state, the form PIERIDAE has been for so long in general use that it would mean upsetting the stability we are all so keen on establishing merely to satisfy the whims of Latin purists.

4. A. Sibatani (*Glasgow*) (19th June 1956)

The traditional usage of PIERIDAE should be maintained and any change of the family name for merely formal reason should be objected.

5. W. Forster (*München*) (19th June 1956)

Zweifellos ist vom philologischen Standpunkt die Ableitung PIERIDIDAE korrekt und richtig. Im Interesse der Stabilität der Nomenklatur lehne ich aber eine Änderung des allgemein eingeführten Namens PIERIDAE energisch ab und stehe auf dem Standpunkt, dass die Stabilität der Nomenklatur in diesem Falle philologischen Erwägungen, mögen sie auch noch so berechtigt sein, vorzugehen hat. Ich bin also der Meinung, dass der Name PIERIDAE beibehalten werden sollte.

6. H. E. Box (*Trinidad*) (19th June 1956)

My knowledge of these matters is so limited that I fear my opinion can have little value, but for what it is worth, on purely conservative grounds, favour alternative (1) [PIERIDAE] rather than (2) [PIERIDIDAE].

7. N. D. Riley (*London*) (20th June 1956)

I feel strongly that this is a case in which long usage should outweigh linguistic niceties. The Whites are a family of butterflies of considerable interest outside the realms of taxonomy and nomenclature. They concern the agriculturist, the geneticist, the general biologist, and others, who would be much confused by the change which, if made, could not conceivably benefit anyone. I am strongly opposed to it.

8. H. M. Pruthi (*Panjab*) (20th June 1956)

I have considered the matter and feel that we should stick to the name PIERIDAE instead of adopting PIERIDIDAE.

9. W. J. Hall (*London*) (20th June 1956)

I have no hesitation in saying that in my opinion this is a case where the International Commission should take the action necessary to secure that this family name should be PIERIDAE.

10. R. Verity (*Firenze, Italy*) (20th June 1956)

There is no serious reason for zoologists to trouble with orthographic correctness. According to my view one should be very careful before launching a new name but, once it has been erected, zoologists should follow the *Règles* strictly, by which it has been provided that names should be stable and cannot be altered.

11. E. M. Hering (*Berlin*) (21st June 1956)

The International Commission should take such action as is necessary to secure that the family name based upon the generic name *Pieris* Schrank, 1801, shall be PIERIDAE, by reasons both of the priority of Westwood, 1839, of this taxon name, and in the interest of the stability of the current nomenclatorial practice.

12. L. A. Berger (*Belgian Congo*) (21st June 1956)

Je veux bien admettre que le terme PIERIDIDAE est plus correct au point de vue grammatical que le terme PIERIDAE, mais l'application de ce premier terme ne nous fera pas faire un seul pas en avant et il n'aidera en rien le domaine scientifique.

Si le terme PIERIDAE est moins correct, il est en tout cas infiniment plus fréquemment employé que celui proposé par le Dr. Paclt et, malgré tout le respect que je porte au code de nomenclature, je continuerai quelles que soient les décisions qui seront adaptées, je continuerai à employer le terme PIERIDAE, car il est bien plus connu que l'autre et parce qu'il ne s'agit plus ici d'une question de nomenclature mais d'une question grammaticale. Je fais de l'entomologie et non de la grammaire ; les recherches que demande l'entomologie sont déjà suffisamment longues que pour ne pas encore perdre un temps précieux à des questions aussi peu importante que celle soulevée par le Dr. Paclt.

Pour me resumer, je suis donc formellement opposé à l'application du terme PIERIDIDAE et continuerai à utiliser uniquement le terme PIERIDAE.

13. R. Paulian (*Madagascar*) (21st June 1956)

Il est absolument indiscutable que l'application stricte des règles de la grammaire classique voudrait la transformation de ce nom en PIERIDIDAE, mais il nous paraît de façon catégorique qu'il y aurait tout intérêt à ce que le nom de famille PIERIDAE soit conservé tel par une décision de la Commission Internationale.

Dans le cas particulier, la transformation suggérée aurait l'inconvénient d'introduire une coupure entre les usages de tous les spécialistes travaillant sur la famille depuis 1839, et l'usage nouveau, et la transformation du nom de famille, simplement pour l'accorder avec des règles grammaticales, ne paraît pas se justifier.

14. B. C. S. Warren (*Folkestone*) (22nd June 1956)

I certainly consider such action should be taken as to retain the spelling of the name as PIERIDAE for the following reasons : (a) the proposed change is purely pedantic and serves no practical purpose ; (b) if adopted the same course would have to be taken (and has been already by supporters of this view) in the case of NYMPHALIDAE ; (c) the result of adding the extra " id " would make the name troublesome to write and to pronounce ; (d) the change would seem, to be in opposition to Article 19 of the Code.

My friend, Mr. A. M. Morley, who is both a keen entomologist and a life long classical adviser is absolutely opposed to the change and thinks it would only cause both spellings to be used, the majority of workers following the form in all the standard works. He admits PIERIDIDAE may be more correct but that both are quite artificial words, and that PIERIDIDAE combines a Latin patronymic with a Greek patronymic which is not satisfactory, and therefore there is no absolute standard of correctness for either.

I would add that such a change would have the unfortunate effect of encouraging collectors to ignore the Code, even those who most wish to uphold it.

15. A. M. Morley (*Folkestone*) (22nd June 1956)

For Mr. Morley's views, see No. 14 above.

16. B. Petersen (*Uppsala*) (22nd June 1956)

I think I prefer the form PIERIDAE because it is the spelling most commonly used.

17. B. N. Schwanwitsch (*Leningrad*) (28th June 1956)

I decidedly think that PIERIDAE should be preferred to PIERIDIDAE. The former is in great use in this country, also in Russian transcription.

18 and 19. N. Knaben and M. Opheim (Oslo) (5th July 1956)

We consider that the International Commission should take such action as is necessary to secure that the family name based upon the generic name *Pieris* Schrank, 1801, shall be PIERIDAE.

20. D. C. Ferguson (Halifax, Canada) (8th July 1956)

I feel that in this case the almost universal usage of PIERIDAE should certainly overrule any attempt to replace it with the technically correct form.

21. H. Beuret (Neuwelt, Switzerland) (12th July 1956)

Considering the fact of the world-wide use of the long established name PIERIDAE I think that a change based on linguistic grounds would cause too much trouble and open the same question in a great number of similar cases. In my opinion the proposed change involves therefore a great danger for nomenclature and the price which we would have to pay for a "correct spelling" is obviously too high!

22. F. Hemming (London) (20th July 1956)

With reference to Commission Circular Z.N.(S.) 289, dated 7th June 1956 I write to inform you that I am strongly in favour of the use by the International Commission of its Plenary Powers to validate the spelling PIERIDAE for the family name based on the generic name *Pieris* Schrank. Nomenclature is a good servant but a bad master and I am of the opinion that where in any particular case the application of the normal provisions of the *Règles* would lead to serious disturbance in current nomenclatorial practice, the proper course is for the Commission to prevent this from happening by the use of its Plenary Powers. This principle has been embodied in the Preamble annexed to the *Règles* by the Copenhagen Congress and is no longer a matter for discussion.

In this particular case there is an overwhelming preponderance of usage in favour of the spelling PIERIDAE and there would seem to me to be no justification in abandoning this spelling for the correct but virtually unknown spelling PIERIDIDAE.

23. T. H. B. Jackson (Kitale, Kenya) (21st July 1956)

There appears to be no doubt that the correct spelling of this taxon should be PIERIDIDAE and, if this were and was likely to remain, an isolated case the Commission might well rule its acceptance. It seems to me, however, that this would create a highly dangerous precedent, involving as it does, the alteration of the name of so high a category as a family. It would be very difficult thereafter to refuse to allow

similar alterations and might well, should the opposite action be taken now, lead to chaotic conditions in the future.

24. W. E. Field (*Washington, U.S.A.*) (26th July 1956)

I consider that the International Commission should take such action as is necessary to secure that the family-name based upon the generic name *Pieris* Schrank, 1801, shall be PIERIDAE, the spelling used therefor by almost all workers both at the present time and throughout the period since the above genus was made the type genus of a family-group taxon by Westwood in 1839.

25. E. C. Zimmerman (*U.S.A.*) (29th July 1956)

This is a difficult question with much to be said in favour of either side. In general I would agree that if it can be proved beyond doubt that there is an error in construction of a name, then it may be best to correct it. However, the names PIERIDAE and PYRALIDAE, at least, were originally spelt in that form and were so used for many years by many authors. Some of these authors were experienced writers of Latin, and they did not use the forms PIERIDIDAE and PYRALIDIDAE. Moreover, the forms PIERIDIDAE, PYRALIDIDAE, etc., are awkward to spell and to pronounce. I believe that this is a case where priority and history indicate that the forms PIERIDAE and PYRALIDAE should be placed on the accepted *List*. I doubt that stability can be had until decisions are taken (arbitrary if need be) by the Commission and the names placed on the *Official List*.

26. F. Martin Brown (*Colorado Springs, U.S.A.*) (9th August 1956)

There can be no argument but that PIERIDIDAE and PIERIDINAE are orthographically correct, if the names derive from $\pi\iota\epsilon\rho\iota\delta\epsilon\varsigma$. I believe, however, that there may be a way to retain the old spellings without direct action of the Commission. The Pierides derived their name from the Macedonian district $\pi\iota\epsilon\rho\iota\alpha$ from which PIERIDIDAE and PIERINAE, I believe, can be legally derived. Since we do not know if Westwood had in mind the Muses or the land from which they derived their name I see no reason to assume either position but acceptance of the land rather than the young ladies does less to confuse the situation. When a name has been used as consistently as those under discussion for so long a time I feel every effort must be made to retain the long-accepted spelling if possible.

27. P. E. L. Viette (*Paris*) (13th August 1956)

I consider that the International Commission should take such action as is necessary to secure that the family-name based upon the generic name *Pieris* Schrank, 1801, shall be PIERIDAE.

28. A. J. Nicholson (*Canberra*) (21st August 1956)

I have considered the question of the name PIERIDAE raised in your letter and have also had comments from some of the Officers of this Division who are interested.

To us there is no doubt that the form PIERIDAE should be retained for this family. We believe the danger of establishing a precedent which might be exploited by workers on many other groups with long-established names would be too great to warrant the change. The difficulty raised by Dr. Paclt could best be resolved by adding the family name PIERIDAE to the *Official List of Family-Group Names*. The name PIERIDAE is short, euphonious and thoroughly established. A change would result in quite unnecessary confusion and, we feel, would be a retrograde step.

APPENDIX 3

Comments received from specialists who favour the acceptance of the spelling "PIERIDIDAE"**1. J. Paclt** (*Bratislava, Czechoslovakia*)

[Dr. Paclt, who was the first to bring the present problem before the International Commission, advocates the acceptance of the spelling PIERIDIDAE. Dr. Paclt's paper is being published as Appendix 1 to the present paper.]

2. E. G. Munroe (*Ottawa*) (20th June 1956)

My feeling on this question is strong and clear. Although the proposed Preamble to the Rules, the resolution adopting the principle of conservation, and two of the four drafts of a specific expression of that principle, were all worded so as to apply to names at all levels, these instruments were intended to preserve well-established names threatened by the law of priority, not to preserve minor errors of elementary grammar or spelling for which an automatic corrective procedure is provided. The whole tendency of the Copenhagen Decisions was (a) to extend and improve such automatic correctives and (b) to reduce the load of specific rulings previously imposed on the Commission. The principle of the present question was virtually decided when the Copenhagen Congress agreed that family names based on classical generic names should be formed by appropriate replacement of the genitive ending of the generic name (*Copenhagen Decisions on Zoological Nomenclature* : 34, Para. 50(1)(a)), and that any contravention of this should be automatically corrected (*ibid.*,

Para. 50(1)(b)) ; this decision specifically replaced the widely criticized decision of the Paris Congress (*Bull. zool. Nomencl.* 4 : 246, Conclusion 9) that family names should be based on an indeterminate "stem" of the name of the type genus.

No real issue of intelligibility or stability arises here. The change is simply from an incorrect to a correct and obviously related form, and should cause only very minor inconvenience. On the other hand to perpetuate the erroneous form under suspension of the Rules would open the door to a possibly large number of similar applications, with the danger of imposing a considerable body of work on the Commission and its secretariat in connection with really inconsequential cases. The only possible argument is that of stability, to which it can be answered that to admit cases of the present type would be to undermine, if not actually to vitiate, the decision adopted at Copenhagen, itself a reversal of the Paris decision. Such vacillation on points of principle, where there is a clear automatic, and not seriously inconvenient procedure already laid down, would in my opinion be a much more serious menace to stability and to the respect the Rules command, than would the occasional introduction of an extra syllable required by correct declension.

In the very rare cases where the genitive form is so different from the nominative as to be virtually unrecognizable, the situation is quite different, and there might be practical grounds for a *conservandum* ruling.

The real mystery is why Dr. Paclt has thought it necessary to trouble the Commission with this matter, when the *Copenhagen Decisions* specifically provide that corrections such as the one he advocates are to be made automatically. Surely the onus is on opponents of the required change to present an application for suspension of rules, and Dr. Paclt's current application is unnecessary and out of order.

3. C. F. dos Passos (*Washington Corners, U.S.A.*) (21st June 1956)

The proposed change of PIERIDAE to PIERIDIDAE by the addition of one syllable or two letters is more of a correction in spelling than a change of name. If it were necessary to propose a new name for *Pieris* Schrank so that the family name should be changed the question would be serious.

On the other hand PIERIDAE has been used so long and so uniformly that it is a great pity that someone has discovered that this name was never written correctly.

I am inclined to believe that such a slight change in the spelling of this family name would cause little or no confusion and therefore feel that, as scientists desired to attain perfection the normal rules should be allowed to operate in this case and that the spelling PIERIDIDAE should be accepted for this family name.

4. A. da Costa Lima (*Manguinhos, Brazil*) (25th June 1956)

Pieris : As was made clear by Grensted, the stem of the word being "Pierid", the correct name of the family derived from it must be, according to the Rules, PIERIDIDAE.

5. V. G. L. van Someren (*Ngong, Kenya*) (27th June 1956)

On the evidence produced, my opinion is that the name which should be used is PIERIDIDAE. I therefore support the alternative (2) of your note. In an issue involving a major family I think we must be guided by what is correct technically and not be influenced by what one can term "common usage".

6. R. Ferreira d'Almeida (*Rio de Janeiro*) (27th June 1956)

The genitive of the Latin name *Pieris* is "Pieridis", its radical thus being "Pierid". According to this the correct name of this family must be, I think, PIERIDIDAE. I therefore agree that the family name established with the genus *Pieris* Schrank, 1801, must be accepted as PIERIDIDAE instead of PIERIDAE.

7. K. J. Hayward (*Tucumán*) (31st July 1956)

With reference to the suggested change of the family name PIERIDAE to PIERIDIDAE, I am of the opinion that the old and incorrectly formed name PIERIDAE should be amended to PIERIDIDAE, thus settling this disputed point once and for all without leaving a loophole for any further discussion.

8. C. L. Remington (*New Haven, Connecticut*) (10th October 1956)

I feel strongly with Dr. Paclt that the correct name for the family including *Pieris* should be PIERIDIDAE, and I have so spelled it in my own recent papers. Before doing so, several years ago, I consulted my Yale colleague, Professor Alfred R. Bellinger, Chairman of our Classical Department and something of an amateur lepidopterist as well as a distinguished Latin scholar. His conclusion was that of Professor Grensted quoted in the Annexe to your letter.

It is my view that the rule for the formation of family names is a good one, easy enough to apply, and that no exceptions should be made for family names. The Plenary Powers appear to me to be much too actively in use and the present case is one of many in which I hope they will not be invoked. If the Commission does not act conservatively on the procedure of by-passing the Rules, I believe an increasing number of thoughtful taxonomists will feel logically obliged to pick and choose among the uses of the Plenary Powers and ignore those which are to them unreasonable.

As for the question of changing familiar names for organisms, I believe that so many changes are inescapable (for taxonomic rather than nomenclatorial reasons), that all taxonomic users necessarily must be accustomed to some instability. They will easily adjust to logically proper changes like PIERIDIDAE with little more than discomfort than a grumble for "the good old days". Use of the Plenary Powers to conserve names, as I have written before, should be reserved for rare instances in which a name unusually well-known and widely used in the non-taxonomic (economic, physiological, genetical, etc.) literature is threatened.

9. J. Bourgogne (Paris) (3rd November 1956)

Il est regrettable d'avoir à modifier un nom (PIERIDAE) universellement employé depuis une centaine d'année et un très grand nombre de fois.

Cependant, puisque la forme PIERIDIDAE est la seule qui soit correcte, il me semble qu'on doive adopter cette forme. La persistance prolongée d'une erreur n'est pas une excuse, et à mon avis le terme PIERIDIDAE devait être adopté définitivement.

Cette modification n'est d'ailleurs pas grave, car elle n'entraînera aucune confusion (ce que n'est pas le cas de nombreuses modifications proposées et adoptées au moins momentanément). J'ai employé la forme PIERIDIDAE dans *Le Traité de Zoologie de P. P. Grassé*.

II. THE SUBSEQUENT HISTORY OF THE CASE

2. Registration of the present application: Upon the receipt in 1947 of Dr. Paclt's preliminary enquiry regarding the spelling to be adopted for the family-group name based upon the generic

name *Pieris* Schrank, 1801 (Class Insecta, Order Lepidoptera), the problem involved was allotted the Registered Number Z.N.(S.) 289.

3. Publication of the present application : The Secretary's Report relating to the present case and associated documents were sent to the printer on 24th August 1956 and were published on 30th November of that year in Part 11 of Volume 12 of the *Bulletin of Zoological Nomenclature* (Hemming, 1956, *Bull. zool. Nomencl.* **12** : 291—306).

4. Issue of Public Notices : Under the revised procedure prescribed by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* **4** : 51—56), Public Notice of the possible use by the International Commission of Zoological Nomenclature of its Plenary Powers in the present case was given on 30th November 1956 (a) in Part 11 of Volume 12 of the *Bulletin of Zoological Nomenclature* (the Part in which the Secretary's Report was published) and (b) to the other prescribed serial publications. In addition such Notice was given to four general zoological serial publications and to eight entomological serials in Europe and America.

5. Comments received from specialists in the group concerned : As has been explained in the application submitted in this case, the questionnaire issued by the Office of the Commission elicited the views of thirty-seven (37) specialists, of whom twenty-eight (28) favoured the validation of the customary spelling *PIERIDAE* for the family-group taxon having the genus *Pieris* Schrank, 1801, as type genus, while nine (9) specialists, including the original applicant (Dr. Paclt), favoured the adoption of the technically correct spelling *PIERIDIDAE*. The communications so received are annexed to the Secretary's Report reproduced in the first paragraph of the present *Opinion*, Dr. Paclt's original communication in Appendix 1, the communication from specialists favouring the spelling *PIERIDAE* in Appendix 2, those from the specialists who favoured the spelling *PIERIDIDAE* in Appendix 3. No further comments from specialists in the group concerned were received as the result of the publication of the present application and of the issue of Public Notices in regard thereto.

6. Comments received from three zoologists who are specialists in groups other than that immediately concerned in the present case : The publication of the present application elicited notes of objection from three zoologists who are specialists in groups other than that immediately concerned in the present case. Those specialists who were interested in the issue raised in the present case solely by reason of the question of principle so involved were opposed to action being taken by the Commission to preserve customary spellings for family-group names in cases where those spellings were technically incorrect. The specialists in question and the communications submitted by them were as follows :—

(a) P. C. Sylvester-Bradley (University of Sheffield) (Enclosure to a letter dated 11th December 1956)

The issue in Mr. Hemming's case (1956, *Bull. zool. Nomencl.* **12** : 291—306) is quite simple : should the Plenary Powers be used to validate an incorrect spelling of a family-group name which has been in current use for a long time (over 120 years), and which has been used in its correct form only occasionally? The decision of the Commission in this case will be important, for it raises an issue of principle. Cases similar to that of the name PIERIDAE are very common throughout the field of zoological nomenclature. Family names based on genera of Greek origin whose complete stem is not contained in the nominative singular have often been spelt incorrectly, and in many of these cases current usage and majority usage both favour the incorrect form. It will be seen, therefore, that the present case is of special interest to a much wider zoological field than that represented by the forty-five entomologists at first circulated with the typescript of Mr. Hemming's proposal.

2. The first attempt at laying down provisions for the formation of family group names was adopted at Berlin in 1901, when a Rule was established instructing authors to add the terminations “-idae” or “-inae” to the “radical” of the name of the type genus. At Graz in 1910 the word “stem” was substituted for the word “radical”. At Paris in 1948 further clarification was introduced by the following definition : “The expression ‘stem’ is to be interpreted as meaning either (1) the grammatical or classical stem or (2) a part of the stem, the choice to be made in favour of whichever of the foregoing methods both shows most clearly the relationship between the generic name on the one hand and the name of the family on the other and provides the simpler and more euphonious form compatible with that relationship” (1950, *Bull. zool. Nomencl.* **4** : 246, paragraph 9(2)). Hemming

(1952, *Bull. zool. Nomencl.* 7 : 65, 66), commenting on the Paris formula quoted above, stated that it "was devised partly to ease the burden imposed on the non-classicist by Article 4, partly for the purpose of promoting stability in nomenclature by preventing the changing of defectively formed but well-established family names. All will agree with the object of the foregoing decision, but, as subsequent correspondence has shown—and as is indeed evident on further reflection—the particular solution selected is not satisfactory, for it lacks adequate precision and rests moreover upon criteria of a subjective character and is therefore incapable of securing final settlements as to the names to be given to families in the Animal Kingdom."

3. At Copenhagen the provisions for the formation of Family-Group names were changed. The suggestion that a valid Family-Group name could be formed from only part of the stem of the type-genus, specifically written into the provisions formulated at Paris, was dropped. The new provisions prescribed "that, where the name, or the terminal part of the name, of the type genus of a taxon in any category in the Family-Group is a word of Greek or Latin origin, the corresponding Family-Group name concerned is to be formed by taking the genitive of the name of the type-genus, and replacing the genitive termination by the appropriate termination for the category in the family group concerned" (1953, *Copenhagen Decisions zool. Nomencl.* : 34, Decision 50 (1) (a)).

4. It will be evident that the Copenhagen decision is in a sense a reversal of the Paris decision. The PIERIDAE, being based on part of the full stem "Pierid-" would be valid according to the Paris formula, but not valid according to the Copenhagen Decision.

5. The purpose of the Copenhagen decision was presumably to ensure that the valid family-group name based on any particular genus would be unique and objective. Since the publication of the Copenhagen report, attempts have been made in several quarters to adopt the spelling of family group names which is judged to be correct according to these provisions irrespective of whether the correct name or an incorrect name is the one that is either current, or dominant in usage. Notable among such attempts to establish uniformity in the spelling of Family-group names has been the publication, under the editorship of Raymond C. Moore, of a number of volumes of the *Treatise on Invertebrate Paleontology*. For example, the last of the six volumes which (at the time of writing) have so far been published, and which deals with the phylum Coelenterata, recognises 266 taxa of the Family-Group category as taxonomically valid. Of these no fewer than 69 (26%) have been corrected, according to the Copenhagen provisions, from the form in which they were originally introduced.

6. The Copenhagen Decisions also recommended that a preamble to the *Règles* should be inserted which would emphasize that a primary purpose was to ensure that zoological names should be both stable and universally accepted. "Where either of these objects is threatened, the Plenary Powers of the International Commission on Zoological Nomenclature afford relief" (1953, *Copenhagen Decisions zool. Nomencl.* : 22, Decision 19 (2)).

7. The Commission, when voting on the case concerning the PIERIDAE submitted by Mr. Hemming, will need to determine first whether in fact the adoption of the correct spelling PIERIDIDAE would upset stability and universality. If they decide that this would indeed be the case, it will be advisable also to consider what influence the policy adopted by the *Treatise on Invertebrate Paleontology* may have in cases of a similar nature in which corrected spellings are being introduced. A consistent attitude would seem to suggest the advisability of issuing without delay a *Declaration* urging authors not to propose changes in family group names formed incorrectly according to the Copenhagen Decisions if such names have passed, in their incorrect form, into current circulation. Such incorrect names should, if this view is acceptable to the Commission, be submitted for validation by use of the Plenary Powers. It could even be argued that a return to the Paris formula might be advantageous.

8. An alternative view might be that stability and universality would be better served by always adopting in such cases the correct spelling. Such a view would lead to a vote in favour of Mr. Hemming's alternative B in the case of the Pierididae, and would endorse the policy at present being adopted by the *Treatise on Invertebrate Paleontology*. This is the course which seems preferable to the present writer.

(b) Henning Lemche (Universitetets Zoologiske Museum, Copenhagen) (Letter dated 13th December 1956)

(In a letter dated 23rd August 1957, Dr. Lemche intimated that he had changed his mind as to the suitability of allowing exceptions to the formally-correct spelling of family names and accordingly withdrew the objection to the present application which he had previously lodged. In these circumstances the letter of objection which Dr. Lemche had communicated to the Office of the Commission on 13th December 1956 is not here reproduced.)

(c) Raymond C. Moore (University of Kansas, Lawrence, Kansas, U.S.A.) (Letter dated 4th January 1957)

The subject of this letter is on the spelling of family-group taxa, one example of this being PIERIDAE versus PIERIDIDAE. I have rather

strong views about this and would like to express them for the record as follows :

(1) In my view, stability and universality of nomenclature as regards family-group taxa almost certainly are far better served by following provisions of the Copenhagen Decisions than by random setting aside of these provisions through exercise of Plenary Powers of the Commission. I use the word "random" because the question of PIERIDAE versus PIERIDIDAE arising in the Order Lepidoptera in no way differs from hundreds of others as we are finding in phyla concerned in paleozoology. Even though some of these erroneously spelled family-group names have been widely used for one hundred years or more, no difficulty such as expressed opposition has been encountered in correcting them.

(2) No ambiguity is introduced by changing PIERIDAE to PIERIDIDAE, since the name of the type genus is the same. Appeal to usage is quite insufficient defence for allowance to present-day specialists to maintain mental habits founded on error. Even where such habits seem to be fixed, the next generation will not be bothered by them.

(3) Unnecessary use of Plenary Powers by the Commission is to be criticized strongly. Granted that exercise of these Powers should be unlimited and unfettered, the Powers are too precious to be squandered. I strongly feel that too-prevalent appeal for exercise of Plenary Powers, sometimes backed by little more than personal preference, leads to establishing nomenclature by fiat rather than by rule. In North America a growing body of strong opposition to multiplying work of the Commission by acts of this sort is seen.

(4) The report that 28 of 37 active lepidopterists consulted in the case of PIERIDAE versus PIERIDIDAE favor the former spelling in my view indicated narrowness of outlook on nomenclatorial principles by this group. Unless each minor division of zoology is to deviate from application of the rules at will, which certainly would lead in the direction of unhappy diversity, the majority opinion of consulted lepidopterists deserves no special weight.

III. THE DECISION TAKEN BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

7. Issue of Voting Paper V.P.(57)43 : On 3rd June 1957 a Voting Paper (V.P.(57)43) was issued in which the Members of the

Commission were invited to vote either for, or against, "the proposal relating to the spelling of the family-group name based on the generic name *Pieris* Schrank, 1801, as set out as Alternative "A" in paragraph 11 on page 295 of Volume 12 of the *Bulletin of Zoological Nomenclature* [i.e. in the paragraph numbered as above in the paper reproduced in the first paragraph of the present *Opinion*], it being understood that any negative vote on the above proposal will be treated as constituting an affirmative vote for the draft Ruling set out as Alternative "B" on the page in the *Bulletin* referred to above.

8. The Prescribed Voting Period : As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 3rd September 1957.

9. Particulars of the Voting on Voting Paper V.P.(57)43 : At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(57)43 was as follows :—

(a) *Affirmative Votes had been given by the following eighteen (18) Commissioners (arranged in the order in which Votes were received) :*

Hering ; Lemche ; Bodenheimer ; Boschma ; Key ;
Mayr ; Prantl ; Dymond ; Riley ; Bonnet ; Hankó ;
Jaczewski ; Esaki ; Tortonese ; Stoll ; Hemming ;
Bradley (J.C.) ; Kühnelt ;

(b) *Negative Votes, five (5) :*

Holthuis ; Vokes ; Sylvester-Bradley ; do Amaral ;
Cabrera ;

(c) *Voting Papers not returned, two (2) :*

Miller²; Mertens³.

10. Declaration of Result of Vote : On 4th September 1957, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(57)43, signed a Certificate that the Votes cast were as set out in paragraph 9 above and declaring that, not less than two out of every three votes cast in the vote on the above Voting Paper having been in favour of the use of the Plenary Powers in the manner recommended in the application submitted in this case, the proposal which formed the subject of the said vote had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

11. Preparation of the Ruling given in the present " Opinion " : On 5th October 1957, Mr. Hemming prepared the Ruling given in the present *Opinion* and at the same time signed a Certificate that the terms of that Ruling were in complete accord with those of the proposal approved by the International Commission in its Vote on Voting Paper V.P.(57)43.

12. Original References : The following are the original references for the names placed on the *Official List of Family-Group Names in Zoology* and on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* by the Ruling given in the present *Opinion* :—

PIERIDAE (correction of PIERIDES) Duponchel, 1832, in Godart, *Hist. nat. Léop. France*, Suppl. 1 : 381

PIERIDES Duponchel, 1832 (an Invalid Original Spelling for PIERIDAE)

PIERIDINA Herrich-Schaeffer, 1853, *Lepid. exot. Spec. nov.* : 54

PIERIDIDAE Reuter, 1897, *Acta Soc. Sci. fenn.* 22 : 228

² After the close of the Prescribed Voting Period a late negative vote was received from Commissioner Miller.

³ After the close of the Prescribed Voting Period a late affirmative vote was received from Commissioner Mertens.

13. Other names involved in the present case : Under a General Directive given by the Fourteenth International Congress of Zoology, Copenhagen, 1953, the Commission is required, when placing a family-group name on the *Official List of Family-Group Names in Zoology*, to place on the *Official List of Generic Names in Zoology* the name of the type genus of the family-group taxon concerned and on the *Official List of Specific Names in Zoology* the specific name of the species which is the type species of the type genus of that taxon if that name is the oldest available specific name for the species concerned and in other cases whatever is considered to be the oldest such name. No action under the foregoing Directive is however required in the present case, since *Pieris* Schrank, 1801, the name of the type genus of the family-group taxon PIERIDAE, was placed on the *Official List of Generic Names in Zoology* by the Ruling given in *Opinion 278* (1954, *Ops. Decls. int. Comm. zool. Nomencl.* **6** : 135—178) and in the same *Opinion* the specific name *brassicae* Linnaeus, 1758, as published in the combination *Papilio brassicae*, the specific name of the type species of the genus *Pieris* Schrank, was placed on the *Official List of Specific Names in Zoology*.

14. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present *Opinion* is accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.

15. The present *Opinion* shall be known as *Opinion Five Hundred (500)* of the International Commission on Zoological Nomenclature.

DONE in London, this Fifth day of October, Nineteen Hundred and Fifty-Seven.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING